## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011178 Address: 333 Burma Road **Date Inspected:** 04-Jan-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Chen Ying Xin, Tu Jun No **Inspected CWI report:** Yes **Rod Oven in Use:** Yes No No N/A N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower

# **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

### **BAY 10 TOWER STRUT**

This QA inspector performed Ultrasonic Testing (UT) of approximately 10%, Magnetic Particle Testing (MT) of approximately 15% and random Visual Testing (VT) of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT and MT report for this date. The members are identified as Tower Components. The weld designations reviewed are as follows.

ED1-A6003-4 GREEN TAG NO. 11692

This Quality Assurance (QA) Inspector observed the following work in progress:

Bay 10

### **TOWER STRUT**

SMAW welding of weld joint 45 located on ND1-STSA3-1-89M-1.

Welder is identified as 053049. ZPMC CWI is identified as Mr. Chen Ying Xin.

# WELDING INSPECTION REPORT

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The welding variables recorded by QC appeared to comply with WPS-B-T-2113.

SMAW welding of weld joint 35 located on ND1-STSA3-1-109M-1.

Welder is identified as 056364. ZPMC CWI is identified as Mr. Chen Ying Xin.

The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

#### NORTH TOWER LIFT 4 SKIN A/B CORNER SEAM REPAIR

SMAW welding of weld joint 4A/B (Repair) located on NSTL4-3B/L.

Welder is identified as 056200. ZPMC CWI is identified as Mr. Tu Jun.

The welding variables recorded by QC appeared to comply with WPS-345-SMAW-4G(4F)-REPAIR.

# NORTH TOWER LIFT 4 SKIN C/D CORNER SEAM REPAIR

FCAW welding of weld joint 1A/B (Repair) located on NSTL4-3B/L.

Welder is identified as 040261. ZPMC QC is identified as Mr. Li Peng Fei.

The welding variables recorded by QC appeared to comply with WPS-345-FCAW-2G(2F)-REPAIR.

During random in process observations this Caltrans Quality Assurance (QA) Inspector observed that ZPMC personnel performing production welding without a ZPMC Quality Control (QC) Inspector present for a time period exceeding 30 minutes. This QA Inspector was present from 07:50 to 08:40 hours. This time frame exceeds the allowable maximum time of 30 minutes for QC Inspection coverage as required by Caltrans Special Provision Section 8-3.01. The welder is identified as, welder # 215620. The Flux Cored Arc Welding (FCAW) process was being performed on the Grating Brackets at 56M elevation diaphragm of North Tower lift 2. These components are all located inside the Tower bay 10. This issue has an incident report.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Serge Sinevod 134-8257-0045, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Umesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer